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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,931	01/13/2004	Andreas Junger	10191/3524	3747

26646 7590 11/29/2006

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EXAMINER

AMAYA, CARLOS DAVID

ART UNIT	PAPER NUMBER
2836	

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/756,931	JUNGER ET AL.	
	Examiner	Art Unit	
	Carlos Amaya	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is responsive to amendments filed on 09/11/2006.

Claim Rejections - 35 USC § 112

2. Claim 1 recites the limitation "the movable core" in claim 1 line 4. There is insufficient antecedent basis for this limitation in the claim.
3. For the purpose of applying prior art "the movable core" is going to be treated as if it read "a movable core".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1- 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Ross (US 3,786,413).

With respect to claim 1 Ross discloses a power supply device (power source 11) of a tire-pressure sensor (as shown in figure 1 on the tire side there is sensor system 12 and power source 11 for providing information of the tire) comprising: a generator which is corotational with a tire, the generator generating an electric voltage by electromagnetic induction (figure 3 shows the system within the tire to produce power

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by induction, col. 4 lines 6-21); and a restoring spring (in the figures a movable core 11a is attached to a flexible cantilever 11b with spring-steel characteristic, col. 6 lines 52-53, col. 6 lines 56-57) attached to a movable core (11a) for returning the movable core to a starting position after a relative change in position has occurred (movable core 11a is displaced by motion of the wheel and it will come to a starting position once the vehicle changes position due to the spring attached to it).

With respect to claims 2 and 3 Ross discloses the device according to the claims, wherein the generator includes a magnetic circuit, and the induced voltage is generated by a geometric change in the magnetic circuit. As shown in the figures induction is generated when the movable core 11a (armature) passes along core 66 with an air gap inducing an electric voltage, col. 34-49.

With respect claim 4 Ross discloses the device according to claim 2, wherein the magnetic circuit includes at least one permanent magnet (col. 53-54).

With respect claim 5 Ross discloses the device according to claim 2, wherein the magnetic circuit includes a stationary magnetically-conductive core (core 66 figure 7 has a coil 17) and a movable magnetically-conductive core (armature 11a), and the induced voltage is generated by a relative change in a position of the movable core with respect to the stationary core (as shown in the figures armature 11a changes position with respect to core 66 generating a voltage).

With respect to claim 6 Ross discloses the device according to claim 5, further comprising a guide, and wherein the movable core moves along the guide (armature 11a moves along a cantilever 11b).

With respect to claim 8 and 9 Ross discloses the device according to claim 5, further comprising a plate spring/torsion bar attached to the movable core for allowing a one-dimensional and two-dimensional change in position of the movable core. As shown in figure 7 there is a cantilever 11b and a clamp 65 attached to the armature 11a that allows a change in position, thus one could fix cantilever 11b in clamp 65 to allow the armature 11a to move in one or two dimensions.

With respect to claim 10 Ross discloses the device according to claim 5, further comprising at least one stop for limiting a magnitude of the relative change in position. Figure 7 shows stops 69 and 69a.

With respect to claim 11 Ross discloses the device according to claim 5, further comprising a coil, in which the induced voltage is generated, attached to the stationary core. Figure 3 shows a coil where the induced voltage is generated; the coil is placed in the stationary core.

With respect to claim 12 Ross discloses the device according to claim 5, wherein the relative change in position is induced by at least one of an acceleration and a change in acceleration of the tire. Col. 4 lines 6-11.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ross (US 3,786,413) in view of Olney (US 5,707,215).

With respect to claim 13 Ross discloses the device according to claim 1, except for an energy storage device, and wherein an electric current is generated by the electric voltage and is used to charge up the energy storage device.

Olney discloses that energy generated by the system can be store in capacitor or batteries for later used, col. 11 lines 18-21.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included an energy storage device as disclosed by Olney in Ross invention.

The suggestion or motivation for doing so would have been to store energy for later used as disclosed by Olney.

Conclusion

8. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Amaya whose telephone number is (571) 272-8941. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CA



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